

Zn₃P₂ Twinning Superlattice Nanowires Grown on Fluorine-Doped Tin Oxide Glass Substrates

*Seon Bin Choi, Man Suk Song, and Yong Kim**

Department of Physics, Dong-A University, Hadan-2-dong, Sahagu, Busan 49315, Korea

Supporting Information

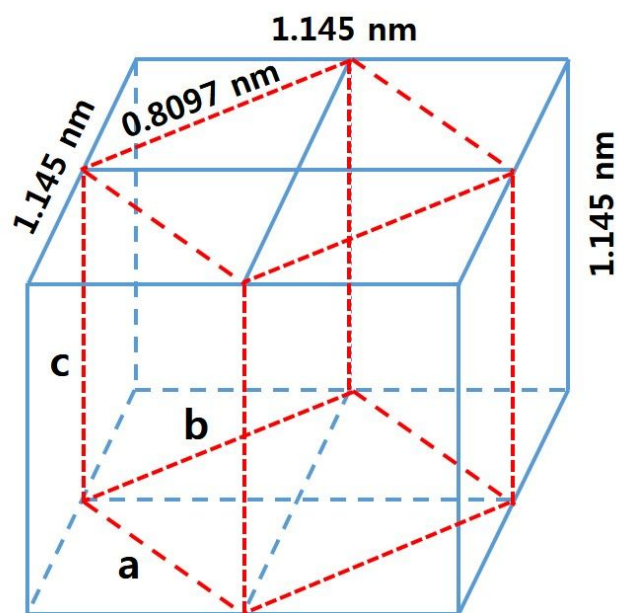


Figure S1. Relationship between pseudo cubic and tetragonal unit cells.

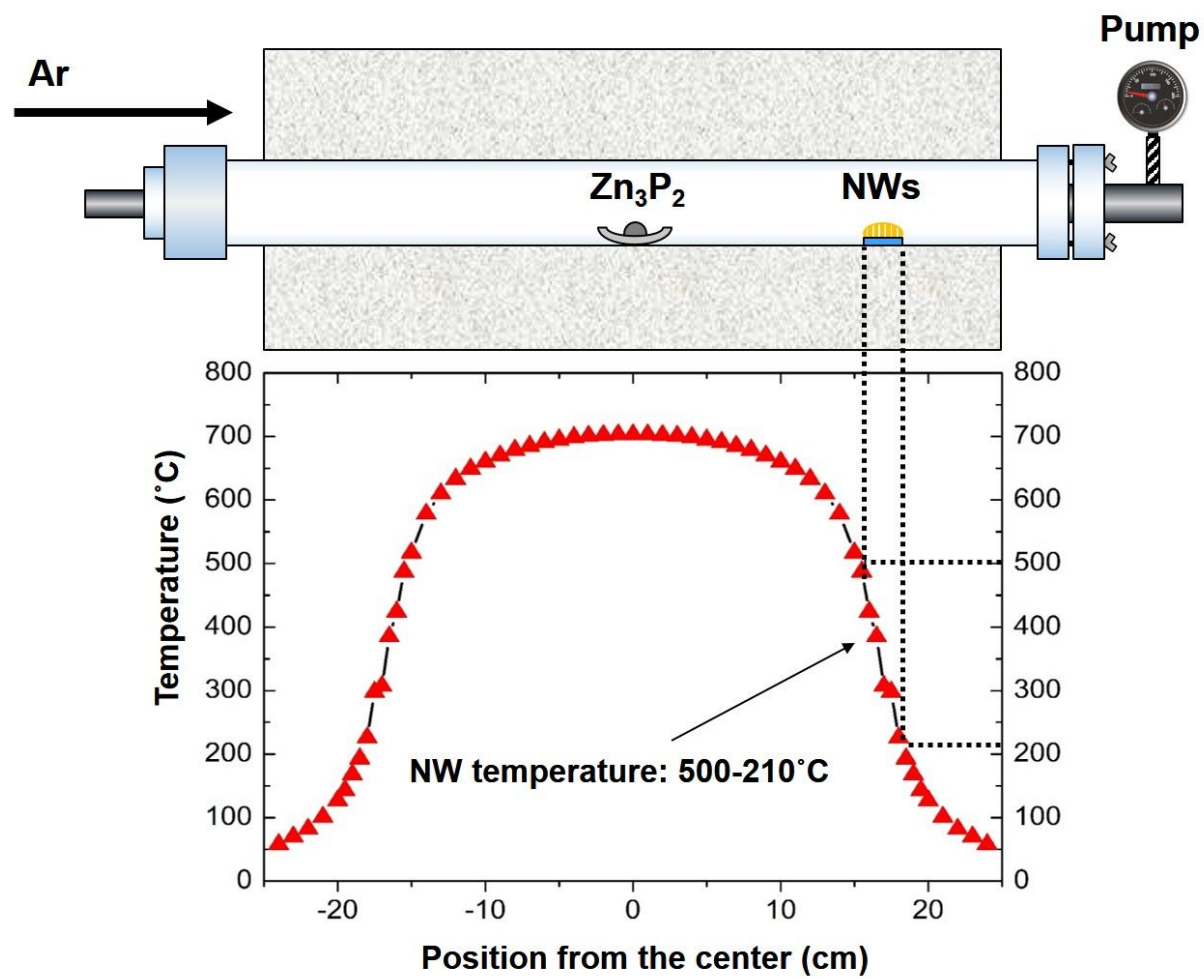


Figure S2. Physical vapor transport system and temperature profile.

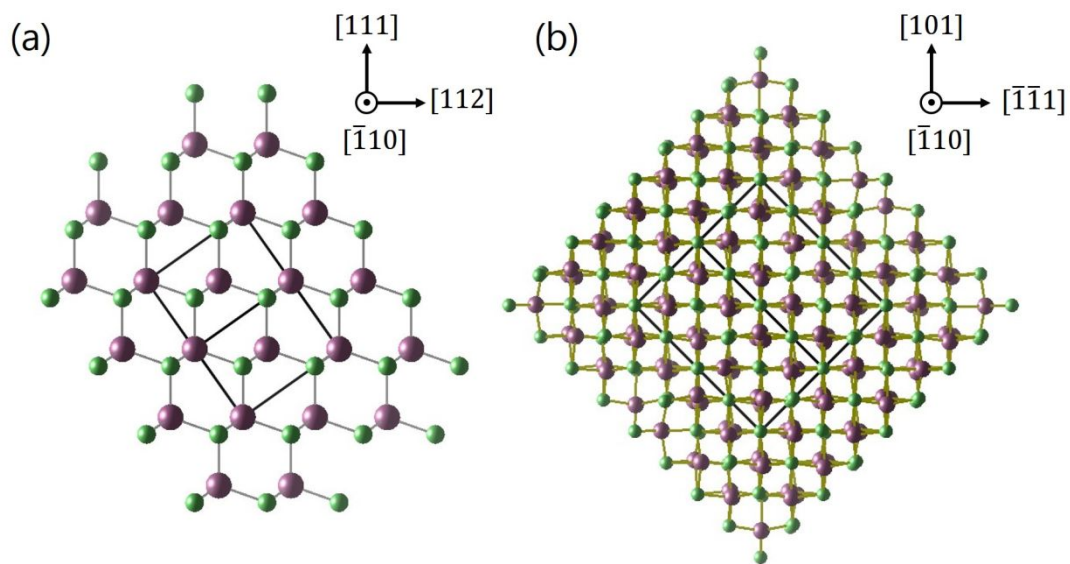


Figure S3. Atomic structures of (a) ZB InAs and (b) Zn_3P_2 for comparison. Black boxes are unit cells. Red atoms are (a) In and (b) Zn. Green atoms are (a) As and (b) P. Atomic structures are simulated by VESTA 3.¹ Note that tetragonal Zn_3P_2 has a 40-atom unit cell in contrast to the 8-atom unit cell for ZB InAs.

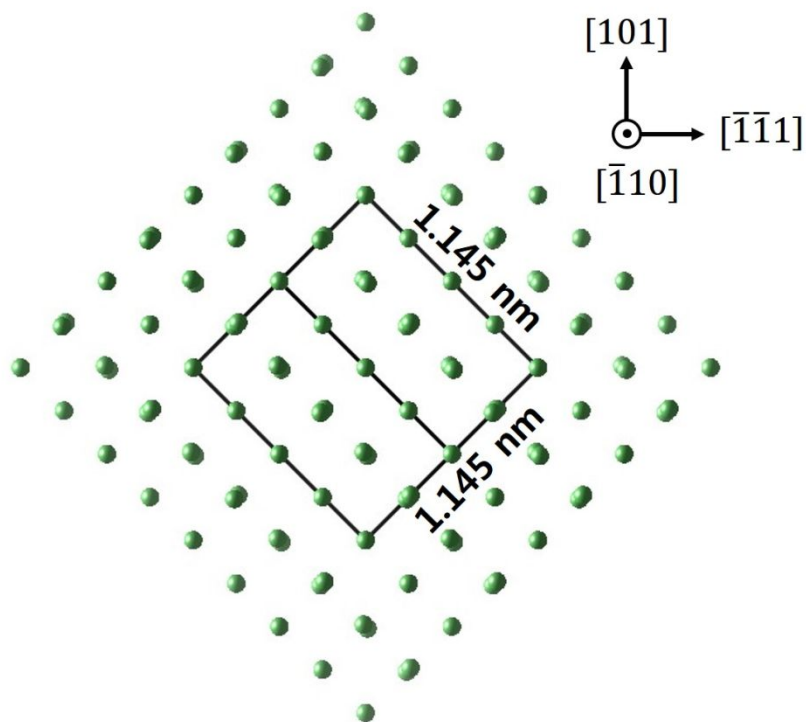


Figure S4. Atomic structures of P in Zn_3P_2 . Black box is unit cell. Atomic structures are simulated by VESTA 3.¹ 8 atomic planes within a unit cell correspond to monolayer height, ($h = 1.145\sqrt{2}/8 = 0.202$ nm).

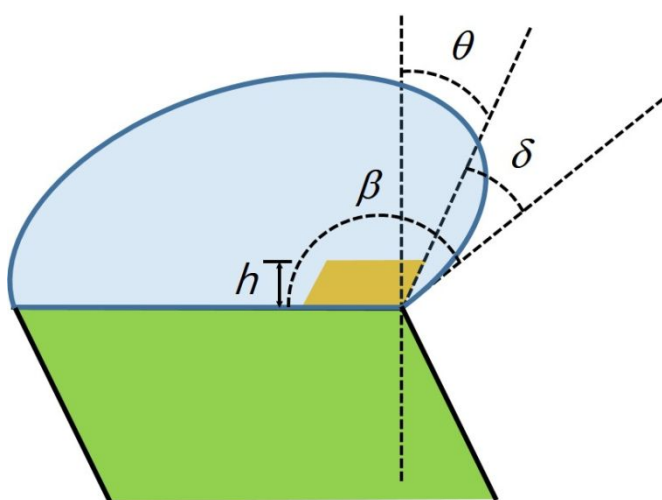


Figure S5. Relationship between various angles presented in the text.

REFERENCES

- (1) Homma, K.; Izumi, F. VESTA 3 for Three-Dimensional Visualization of Crystal, Volumetric and Morphology Data *J. Appl. Crystallogr.* **2011**, *44*, 1272–1276